ABSTRACT

The present invention relates to novel pearlescent pigments based on substrates comprising at least one selectively light absorbing layer, which consists of a chalcogenide and/or oxychalcogenide, preferably sulfides or oxysulfides. The coatings can be directly prepared by the precipitation of chalcogenides in liquid suspension onto the substrates. Preferably, metal oxides or mixed metal oxides are coated onto the substrate; the resulting precursor is transferred into a furnace and calcined under a sulfurizing gas flow to convert the oxides into oxysulfides and/or sulfides depending on the reaction parameters. The conversion to sulfides and/or oxysulfides is preferably carried out in a fluidized bed reactor. Angle-dependent optical pigments are thus produced, which are especially useful in paints, powder coatings, paper coatings, plastics, cosmetics, inks and security-enhancing features as well as ion decorative applications for foods and drugs.